

Before the
FEDERAL COMMUNICATIONS COMMISSION
 Washington, D.C. 20554

**ORIGINAL
 RECEIVED**

MAR 12 2001

In the Matter of the)
)
 Revision of Part 15 of the)
 Commission's Rules Regarding)
 Ultra-Wideband Transmission Systems)

FEDERAL COMMUNICATIONS COMMISSION
 OFFICE OF THE SECRETARY

ET Docket No. 98-153 /

REPLY COMMENTS OF XM RADIO INC.

XM Radio Inc. ("XM Radio") hereby files these reply comments in response to comments filed on February 23, 2001 regarding the National Telecommunications and Information Administration's ("NTIA") test data¹ on potential interference from the operation of Ultra-Wideband ("UWB") transmission technology.²

Background

In 1995, the Commission allocated spectrum in the 2.3 GHz band ("S-band") to the satellite Digital Audio Radio Service ("DARS"). XM Radio and Sirius Satellite Radio Inc. ("Sirius") were the winning bidders in the DARS licensing auction in April 1997, together committing nearly \$170 million to the U.S. Treasury. In October 1997, the Commission licensed XM Radio and Sirius to provide DARS in the United States.³ DARS will provide high-quality, continuous, nationwide multichannel audio service. The availability of DARS will increase the

¹The Temporal and Spectral Characteristics of Ultrawideband Signals, NTIA Report 01-383, William A. Kissick, Editor (January 2001) ("*NTIA Report 01-383*"); Assessment of Compatibility Between Ultrawideband Devices and Selected Federal Systems, NTIA Special Publication 01-43 (January 2001) ("*NTIA Report 01-43*").

²Comments Requested on Test Data Submitted by the National Telecommunications and Information Administration Regarding Potential Interference from Ultra-Wideband Transmission Systems, Public Notice, *Public Notice*, DA 01-171 (January 24, 2001).

³American Mobile Radio Corporation, 13 FCC Rcd 8829 (Int'l Bur., 1997); Satellite CD Radio, 13 FCC Rcd 7971 (Int'l Bur., 1997).

No. of Copies rec'd 014
 LISTED CODE

variety of programming available to the listening public, offering an unprecedented variety of music and information, including in areas of the country that have traditionally been underserved by terrestrial radio stations.⁴

In its comments on the Commission's Notice of Proposed Rulemaking ("NPRM")⁵ in this proceeding, XM Radio urged the Commission to prohibit UWB operations below 3 GHz. If the Commission does allow UWB operations below 3 GHz, then XM Radio urged the Commission to limit emissions from such devices into the DARS band to a field strength level of 18 uV per meter at 3 meters in order to ensure that UWB transmissions do not cause harmful interference to DARS receivers.⁶ While the Commission proposed that its rules for UWB operations be more restrictive below 2 GHz than above 2 GHz,⁷ XM Radio urged the Commission to modify this proposal to protect consumers of DARS in the 2.3 GHz band in the same manner as the Commission proposed to protect consumers of broadcast TV and radio and other pervasive communications services that operate below 2 GHz.

In January 2001, the Commission asked for comment on two NTIA reports containing analyses of the potential for harmful interference caused by the operation of UWB transmission technology to U.S. Government operations between 400 MHz and 6000 MHz.

⁴Report and Order, Memorandum Opinion and Order, Establishment of Rules and Policies for the Digital Audio Radio Satellite Service in the 2310-2360 MHz Frequency Band, 12 FCC Rcd 5754, ¶ 1 (1997) ("*DARS Order*").

⁵Revision of Part 15 of the Commission's Rules Regarding Ultra-Wideband Transmission Systems, Notice of Proposed Rulemaking, ET Docket No. 98-153 (May 11, 2000) ("*UWB NPRM*").

⁶Comments of XM Radio Inc., ET Docket No. 98-153 (September 12, 2000).

⁷*UWB NPRM* ¶¶ 27-30, 39.

Discussion

In its report, the NTIA concludes that “[o]perations of UWB devices below 3.1 GHz will be quite challenging.”⁸ XM Radio concurs in the comments of Sirius and others arguing that the NTIA’s report demonstrates that UWB operations should not be permitted below 3.1 GHz.⁹

XM Radio also notes that the NTIA testing focused only on interference from UWB devices to governmental communications and not to commercial operations. XM Radio supports the comments of those calling for more testing of the effects of UWB technology on commercial radio technology.¹⁰ Before the Commission can permit any use of UWB, it must develop a complete technical record, which includes not only the effect of UWB on governmental operations.

The NTIA also notes that “aggregate UWB interference can be a significant factor to receiving systems.”¹¹ XM supports the comments of those who argue that further consideration is needed of the cumulative impact of many UWB devices operating simultaneously on licensed devices.¹²

The NTIA demonstrates that there are simply too many unanswered questions regarding UWB technology and its effects on other services at this time to allow operation of UWB devices, particularly below 3 GHz. Further testing and analysis is required before the Commission can even consider authorizing ubiquitously deployed UWB devices.

⁸*NTIA Report 01-43* at x.

⁹Comments of Sirius Satellite Radio at 3 (“Sirius supports NTIA’s position that the cut-off frequency should be 3.1 GHz.”); Comments of the U.S. GPS Industry Council at 3 (stating that the NTIA tests results “reveal the existence of an interference problem of sufficient magnitude to preclude all UWB transmissions below 3.1 GHz”).

¹⁰Comments of AT&T Wireless Services at 2; Comments of Sirius Satellite Radio at 2.

¹¹*NTIA Report 01-43* at x.

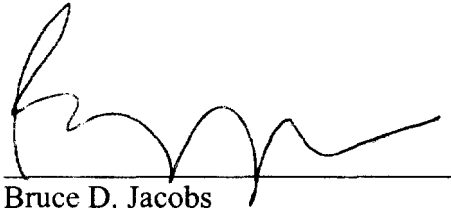
¹²Comments of AT&T Wireless Services at 5; Comments of Sirius Satellite Radio at 4.

Conclusion

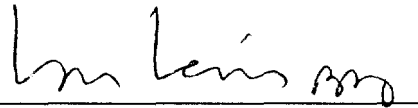
Based on the foregoing, XM Radio urges the Commission to act consistently with the views expressed herein.

Respectfully submitted,

XM RADIO INC.

A handwritten signature in black ink, appearing to read 'Bruce D. Jacobs', written over a horizontal line.

Bruce D. Jacobs
David S. Konczal
Shaw Pittman
2300 N St., N.W.
Washington, D.C. 20037
(202) 663-8000

A handwritten signature in black ink, appearing to read 'Lon C. Levin', written over a horizontal line.

Lon C. Levin
Senior Vice President, Regulatory
XM Radio Inc.
1500 Eckington Place, N.E.
Washington, D.C. 20002
(202) 380-4000

March 12, 2001

CERTIFICATE OF SERVICE

I, Cindi Smith Rush, a secretary to the law firm of ShawPittman, hereby certify that on this 12th day of March 2001, served a true copy of the foregoing **“REPLY COMMENTS OF XM RADIO INC.”** by first class United States Mail, postage prepaid, upon the following:

Terry G. Mahn, Esq.
Robert J. Ungar, Esq.
Fish & Richardson P.C.
601 13th Street N.W.
Suite 901 South
Washington, D.C. 20005

Douglas I. Brandon
Vice President-External Affairs
David P. Wye
Director, Spectrum Policy
1150 Connecticut Avenue, N.W.
Washington, D.C. 20036

Henry L. Baumann
Jack N. Goodman
Ann Zuvekas
1771 N Street, NW
Washington, DC 20036-2891

Nicholas W. Allard
Arthur S. Landerholm
Lee Ann Bambach
Latham & Watkins
1001 Pennsylvania Avenue, N.W.
Suite 1300
Washington, D.C. 20004

Bruce Mehlman
Telecommunications Policy Counsel
Cisco Systems, Inc.
601 Pennsylvania Ave., N.W.
Suite 520 – North Building
Washington, DC 20004

Raul R. Rodriguez
Stephen D. Baruch
Leventhal, Senter & Lerman P.L.L.C.
2000 K Street, N.W.
Suite 600
Washington, D.C. 20006

Howard J. Symons
Sara F. Leibman
Tara M. Corvo
Mintz, Levin, Cohn, Ferris, Glovsky
and Popeo, P.C.
701 Pennsylvania Avenue, N.W.
Suite 900
Washington, D.C. 20004

Mitchell Lazarus
Fletcher, Heald & Hildreth, P.L.C.
1300 North 17th Street, 11th Floor
Arlington, VA 22209

Philip L. Malet
Todd B. Lantor
Steptoe & Johnson LLP
1330 Connecticut Avenue, N.W.
Washington, DC 20036

James F. Lovette
Director of Strategic Policies
3250 Ash Street
Palo Alto, CA 94306

Henry Goldberg
W. Kenneth Ferree
Goldberg, Godles, Wiener & Wright
1229 Nineteenth Street, N.W.
Washington, DC 20036

Clayton Mowry
Satellite Industry Association
225 Reinekers Lane, Suite 600
Alexandria, VA 22314

Linda C. Sadler
Director
Governmental and Regulatory Affairs
Rockwell Collins, Inc.
1300 Wilson Blvd.
Suite 200
Arlington, VA 22209

Charles McKee
General Attorney, Sprint PCS
6160 Sprint Parkway
Overland Park, KS 6625

Edward A. Yorkgitis, Jr.
David C. Kirschner
Kelley Drye & Warren LLP
1200 Nineteenth Street, N.W.
Suite 500
Washington, DC 20036

Paul Withington
Vice President
7057 Old Madison Pike
Huntsville, AL 35806

Alan G. Fishel
Brett A. Snyder
Arent Fox Kintner Plotkin & Kahn, PLLC
1050 Connecticut Avenue, N.W.
Washington, DC 20036-5339


J.R. Carbonell
Carol L. Tacker
5565 Glenridge Connector
Suite 1200
Atlanta, GA 30342

Robert J. Fontana, Ph. D.
President
Multispectral Solutions, Inc.
20300 Century Boulevard
Germantown, MD 20874

Rikke K. Davis
Attorney, Sprint Corporation
401 9th Street, N.W.
Washington, DC 20004

Scott Blake Harris
Damon Ladson
Michael Nilsson
Harris, Wiltshire & Grannis LLP
1200 Eighteenth Street, NW
Washington, DC 20036

Gerald Musarra
Vice President
Trade and Regulatory Affairs
Lockheed Martin Corporation
1725 Jefferson Davis Highway, Suite 403
Arlington, VA 22202


Cindi Smith Rush